

Applying Theory to Assess Cultural Competency

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Abstract -Using a theoretical cultural competency model, the effectiveness of a cultural competency learning assignment was examined to determine: 1) students' cultural competency levels as reflected through the assignment, and 2) the effectiveness of the assignment as a cultural competency learning activity. Third-year family medicine clerkship students completed a required project to research and reflect upon a patient's "cultural belief." Applying a model of cultural competence development, a content analysis of written project reports determined what level of cultural competence was expressed by students' reflections. Results indicated 16% of students were at "no insight", 18% at "minimal emphasis" and 66% at "acceptance." While many students expressed an "acceptance" competence level, not all students expressed the desired level of acceptance about the role of cultural beliefs in medical care. Application of a cultural competency theory to assess learners permits educators to frame performance changes within the context of competency achievement and determine if desired levels of competency have been achieved.

As the racial and ethnic composition of nations continues to change, the need for physicians to practice medical care that accepts, appreciates and accommodates cultural differences has become essential.¹⁻³ In turn, medical school curricula are recognizing the need for increased emphasis on issues of cultural sensitivity in medicine and addressing the need to incorporate cross-cultural education through a variety of approaches.^{4,5} These include: 1) experiences designed to promote self-reflection about bias and the need to appreciate differences in health values, beliefs and behaviors; 2) activities that provide knowledge about particular cultural groups' health values, beliefs and behaviors; and 3) methods to develop skills for effective cross-cultural approaches with patients.⁶

Assessment of curricular interventions in the growing field of cross-cultural medical education is challenging⁶ and reports on cultural competency training outcomes are limited.^{4,7}

The majority of available reports describe the assessment of students' attitudes and knowledge through questionnaires or written tests following specific curricular interventions.^{2,8-11} Two reports describe using standardized patients to assess students' awareness of cultural and ethnic diversity in the clinical settings.^{12,13} Crandall et al⁴ described their experience applying theory to the development and

evaluation of a pilot cultural competency curriculum. The application of a theoretical cultural competency framework helped determine changes in students' knowledge, skills and attitudes as a result of the course. When theory is applied to the design of student assessment strategies, performance changes can be evaluated in the context of a developmental continuum and not simply as abstract "increases" (or "decreases") in students' knowledge, skills, and attitudes, as has been commonly reported in the literature describing evaluation of cross-cultural medical education programs. Application of a cultural competency developmental theory to student evaluation permits educators to make a summative statement about a student's achievement, as occurs with other required competencies within medical education.

Following the example of Crandall et al,⁴ this study applied a theoretical framework to assess 1) students' cultural competency levels as reflected through a third-year family medicine clerkship assignment and 2) the effectiveness of the assignment as a cultural competency learning activity. The specific theoretical framework used was the Culhane-Pera model^{4,14} as presented in Crandall et al.⁴ The Culhane-Pera model is adapted from Bennett,¹⁵ who described intercultural sensitivity in six developmental stages from ethnocentrism to ethnorelativism. The model is built upon work in communication theory and conceptualizes how practitioners, or learners,

may transition from one level to the next of competence. As Crandall writes about the Bennett model, the model is built “on established concepts and addressed stages of development with greater specificity, which allows ‘educators to diagnose stages of development for individuals or groups, to develop curriculum relevant to particular stages, and to sequence activities in ways that facilitate development toward more sensitive stages.’”^{4,15} Culhane-Pera collapsed two of the stages in the Bennett model and posits the following five levels of cultural competency for a health care professional:

- Level 1 = No insight on influence of culture on medical care
- Level 2 = Minimal emphasis on culture in medical setting
- Level 3 = Acceptance of the roles of cultural beliefs, values, and behaviors on health, disease and treatment.
- Level 4 = Incorporation of cultural awareness into daily medical practice.
- Level 5 = Integration of attention to culture into all areas of professional life

In the present study, these developmental levels of cultural competency were used to categorize the reflected level of cultural competency in each student’s assignment. In turn, examining the number of students’ reflections assigned to each level provided information about the effectiveness of the assignment as a cultural competency learning activity. In this manner, the Culhane-Pera model provided a theoretical framework of cultural competency development to assess where students’ were developmentally along the continuum and if desired levels of competency had been achieved.

Methods

In response to the need to introduce cultural competency in medicine to medical students, the Family Medicine clerkship implemented in the 2001-02 academic year a required learning activity intended to foster students’ awareness of cultural issues in medical practice. The four week clerkship was required in the third year and students were assigned to one of seven Family Medicine residency sites throughout South Carolina for the rotation. To complete the learning activity, students were instructed to: 1) identify a “cultural issue” related to a patient interviewed; 2) research the issue through websites, published literature or knowledgeable persons; 3) reflect on what had been learned; 4) apply lessons learned from the reflections and research to thoughts about providing care in the future for patients; and 5)

write up their issue, findings and reflections as a report. In the written report, students were to cite references, web sites, knowledgeable individuals and other sources used for their research. Activity instructions did not specify types of “cultural issues” students were to identify, but rather emphasized for students to look for differences in health care beliefs and practices between themselves and their patients. “Cultural” was intended to be broad and inclusive in its definition for the students’ work. The reports were graded by a faculty member and were assessed for a) complexity of the cultural issue selected; b) breadth and depth of the research, including number of citations; c) depth of the student’s reflection; and d) quality of the writing. The report accounted for 5% of the student’s overall clerkship grade.

Prior to this clerkship activity, students had participated in few formal cultural competency curricular activities during the medical education. In the first year of the curriculum, students participated in a medical school orientation session focused on diversity issues, attended a one hour lecture on general issues related to cultural competency in health care and completed a behavioral science course problem-based learning case that introduced them to issues of patients’ health beliefs and use of home remedies. Formal curricular activities related to cultural competency in medicine had not been presented in the second year curriculum and the other third-year clerkships did not present any formal didactic sessions related to the topic.

The Family Medicine clerkship learning activity reports were content analyzed independently by two reviewers to determine the level of cultural competency expressed by students’ written reflections. The reports were blinded by students’ name and clerkship report grade. To assess the level of cultural competency, the reviewers used the Culhane-Pera^{4,14} model of cultural competency development as presented in Crandall et al⁴ and described in the Introduction.

The study team agreed prior to the content analysis that it would not code reports for levels 4 and 5 because the team believed developmentally that third year students in a clerkship would not have the opportunity to demonstrate incorporation of cultural awareness into daily medical practice (level 4) or integrate attention to culture into all areas of professional life (level 5). Thus, for content analysis purposes, the reviewers focused assigning a level 1, 2 or 3 to the students’ reflections as expressed in the written reports. Operationally, a level 1 reflection did not reference how learning about the patient’s cultural belief was of value to patient care. A level 2 reflec-

tion made reference to the importance of recognizing cultural differences in patient care. A level 3 reflection made reference to the need to actively incorporate awareness of cultural differences into patient care, such as asking the patient questions to assess his or her cultural background and/or beliefs, listening carefully for the patient's use of alternative medicines/practitioners, etc.

Following completion of their independent analyses, the reviewers met together to resolve discrepancies and reach final agreement on theme type and level of competence expressed. This study was approved by the study institution's institutional review board.

Results

All 131 clerkship students completed the required learning activity and all reports were content analyzed (100%). The reviewers had an initial overall agreement level of 89% agreement on the level of competency expressed in the written reports. A simple Kappa coefficient was calculated on the initial distribution of the ratings of the competency levels. The Kappa coefficient was 0.75 and highly significant, with $p < .001$. Regarding levels of cultural competency reflected in the reports, 16% reflected "no insight" (Level 1), 18% reflected "minimal emphasis" (Level 2) and 66% reflected "acceptance" (Level 3). Below are examples of students' reflections exemplifying the three different levels of cultural competency as expressed in the written project.

Example of "No Insight" Level 1 Reflection:

1. "I had a difficult time correlating his (the patient, a young Hispanic male, smoking cigarettes) findings with data from sites like the CDC or the WHO web sites. There is little doubt that increasing economic stature is allowing for more discretionary spending amongst new immigrants and the targeted advertising which tobacco companies have used to prey on the less well informed and newly enriched."
2. "After continuing to wade through the text of the website, I'm not so sure that I have a firm grasp on Baha'i. However, I did read some great ideals and nothing that made me worry about the boy I saw in clinic. While I don't really know how the practice of Baha'I differs from the ideas set forth in the doctrine, I feel that the child's father loves him very much."

Examples of "Minimal Emphasis" Level 2 Reflection:

1. "The basic practice of Ayurvedic medicine is rooted in the principles mentioned above. Certainly many of these treatment strategies can be considered a helpful tonic in the treatment of certain ailments. However, I feel that it's important to explain to patients that this should only be used as adjunct therapy. As physicians, it is essential that we recognize alternative medicine and its practice, i.e., how it can be beneficial and harmful when used in conjunction with traditional Western medicine."
2. "As my investigation of the medicine person revealed more understanding about his/her role in Native American spirituality, it made me ever more cognizant that not all skilled in medicine wear white coats."

Examples of "Acceptance" Level 3 Reflection:

1. "In the future, I will be careful to listen for home remedy use, and try and take a few minutes to find out about it and understand my patient and the possible benefits of it as well as the risks...and if needed, do a quick bit of research!"
2. "Through this experience, I became aware of how important it is to consider a patient's culture and personal beliefs in the treatment plan."

Discussion

Medical schools are incorporating cultural competency training within their curricula and a variety of reports have documented the evaluation of these efforts, including the use of questionnaires to assess students' attitudes^{2, 8-11} and standardized patient encounters^{12,13} to assess clinical skills development. In this study, we sought to apply a cultural competency developmental theory, the Culhane Pera model,^{4,14} to assess students' cultural competency development following a curricular activity that required them to research, reflect upon and write about a patient's "cultural belief" different from their own beliefs. Additionally, we sought to use theory to evaluate the effectiveness of the curricular activity. Results indicated the majority of students expressed an "acceptance" level of cultural competency development within their reflections and writing. Since students may have already gained insights regarding the importance of cultural beliefs within health care prior to the learning activity, it is unclear whether this "acceptance" level was achieved as a direct result of the

learning activity or is attributable to other, cumulative learning experiences. A third of students did not express the desired level of acceptance about the role of cultural beliefs in medical care, thus demonstrating the project, as an isolated instructional activity intended to foster cultural competency development, was not an effective learning tool for all students. This finding may be due in part to the nature of the assignment, which used a broad definition of "cultural" and emphasized for students to look for differences in health care beliefs and practices between themselves and their patients. A learning activity focused on specific cross-cultural issues in medicine might have prompted more student reflections demonstrating higher levels of competence.

A limitation of this study is the determination of the competency level expressed in each student's written reflection was subjectively conducted. Interrater reliability was appropriate however, and the reviewers were able to dissolve remaining discrepancies. Importantly, independent reviewers were able to assess the reflections and determine a level of competency using a theoretical model. Others may find use of the Culhane-Pera model of cultural competency levels valuable for assessing student work in the area of cultural competency.

The application of a cultural competency theory to assess learners permits educators to frame performance changes within the context of competency achievement and to determine if desired levels of competency have been achieved. Changes in knowledge, skills and attitudes thus have a developmental meaning when evaluation is grounded upon a theoretical framework. A summative evaluation of the learner's competency within a single assessment or across a variety of evaluation measures can be ascertained.

Application of the theoretical framework to assess students' cultural competency levels has additional value as a program evaluation tool. Examination of the levels of cultural competency students demonstrate and the number of students at each level provides significant program evaluation data. The results in this study indicated that while the majority of students demonstrated the desired cultural competency level, a substantive number (one-third) did not. While the curricular activity was of value for many students from a programmatic perspective, one could argue that its impact on students' competency development could be broader. As an isolated curricular activity it had partial success in meeting desired program goals, though its apparent success may be due in part to other learning activities and experiences

separate from the particular curricular activity. Students may have already achieved a level of "acceptance" with cultural competency prior to the curricular activity and the activity may have simply served as a vehicle with which to demonstrate the level of competency achieved. As with the development of most complex competencies, multiple learning activities are likely requisite for successful cultural competency training. Similarly, multiple forms of assessment are desirable to demonstrate achievement of a complex competency, such as cultural competency. When a variety of curricular and assessment components are embedded in a cultural competency curriculum, the application of theory is of value to understand how one component adds to the greater whole of competency development. Finally, the application of theory can provide an important framework for cumulative assessment and achievement evaluation.

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